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AUTHOR Goldscheider, Frances Kobrin
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ABSTRACT

This document examines three important national surveys that provide periodic longitudinal data on the transition to adulthood during the late 1960s and 1970s: (1) the Parnes Young Men and Women Panels, initiated in 1966 and 1968; (2) the Panel Study of Income Dynamics, initiated in 1968; and (3) the National Longitudinal Study of the High School Class of 1972. Section I of this paper provides an introduction to the three datasets and describes two projects in the Rand Corporation Labor and Population Program which build on the complementarities of these datasets. Section II outlines the special characteristics of each survey that affect the construction of appropriate cohorts for comparison and compares them on such background characteristics as age at survey, race and parental education. Section III presents the constructions of the four measures of life-cycle progress: first marriage, leaving the parental home, school enrollment, and military service. Section IV shows how the four measures compare across surveys. Section V discusses the results and their implications for the complementary use of these datasets and for the prospective collection of information on life-cycle transitions. Background tables are appended and references are given. (NRB)

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PREFACE

A number of projects under way in the Labor and Population Program at The Rand Corporation make coordinated use of several longitudinal micro-datasets for studying families and households. Researchers in that program occasionally confront technical issues that relate to the concerns of other researchers, especially those working with one or another of the same datasets. Accordingly, the program's findings are documented here so that others may draw upon them. This effort is supported by a grant from the National Institute of Child Health and Human Development.

This Note provides a technical evaluation of certain life-cycle measures for three of the datasets. Although tedious and time-consuming, that evaluation is essential to the scientific validity of research conducted in the program. Other researchers using these datasets may be able to build on what has been learned about the strengths and weaknesses of these life-cycle measures.

SUMMARY

The coordinated use of several longitudinal micro-datasets can enrich scientific findings and strengthen their validity through replication. Complementarities among such datasets enable researchers to test common sets of hypotheses, either to replicate results independently or to extend findings along key dimensions. A given finding, for example, may be independently corroborated with two datasets instead of one, or it may be shown to hold for, say, a particular ethnic or racial segment of the population, as well as for the population generally.

This Note examines three such datasets whose complementarities have been explored in conjunction with several interrelated studies conducted within Rand's Labor and Population Program. The datasets are: (1) the Parnes Young Men and Women Panels, under way since the middle and late 1960s; (2) the Panel Study of Income Dynamics, under way since 1968; and (3) the National Longitudinal Study of the High School Class of 1972. Each is a nationally representative survey that provides periodic longitudinal data on many thousands of individuals. The interest here is in the changes of status that those individuals experience as they make their transition into adulthood.

To reap the benefits of using multiple datasets, researchers must resolve certain fundamental problems. Any two surveys administered independently can yield disparate estimates of the same phenomenon if questions are asked differently or answers are coded differently. This Note reports on efforts to calibrate various measures of life-cycle progress in early adulthood. The special characteristics of each survey affecting the appropriate cohorts are compared in terms of age and background characteristics. Then the Note examines four measures of life-cycle progress across all three surveys: first marriage, departure from the parental home, school enrollment, and military service.

Most of the measures examined do measure the same underlying phenomenon. The technical results and the questions they answered were

a necessary part of the overall investigation. They are reported here for the benefit of other researchers who may wish to coordinate use of these three datasets or others similar to them.

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I. INTRODUCTION

Young persons make a series of fundamental and usually rapid transitions early in adulthood involving, most notably decisions on whether to marry, remain in school, and increase independence from parents. These decisions have important implications not only for their future work and family careers, but also for structural processes at the national level through their influence on economic and demographic growth. As the analytic importance of these decisions has become more apparent (for both theoretical and policy-oriented questions), so too have the complexities of causal analysis at a stage in life when change is extremely rapid. As a result, longitudinal data on young adults have become crucial for understanding the steps in the transition to adulthood.

This Note examines three important national surveys that provide periodic longitudinal data on the transition to adulthood during the late 1960s and 1970s: (1) the Parnes young men and women, hereafter referred to as *Parnes*, initiated in 1966 and 1968; (2) the Panel Study of Income Dynamics (1968), denoted here the *PSID*; and (3) the National Longitudinal Study of the High School Class of 1972, denoted here as *NLS72*. Although all three surveys were designed to focus generally on economic behavior, the steady addition of family-related data has rendered each one increasingly valuable as a record of events unfolding in young people's lives. Analyses using these datasets have amply demonstrated their value.

As experience with these longitudinal datasets has accumulated, projects that build upon the strengths of more than one have become attractive, because each one has distinct characteristics. The major differences among them derive from their widely different age bands. The NLS72 follows a single cohort of high school seniors in 1972 (predominantly 17- and 18-year-olds at the outset). The Parnes surveys are also delimited in age, but less narrowly, including in each case a range of 10 years (ages 14 to 24 at the beginning of the survey). The PSID has followed all people in the original sample of households,

regardless of age. With sample populations all of the same general order of magnitude, each of these datasets therefore contains widely different sample sizes at given ages. The PSID allows comparisons over the broadest range of cohorts and age groups but has the fewest people in any single one; the NLS72, by contrast, affords no inter-cohort comparisons and virtually no age comparisons, but it provides the richest data for analyzing intra-cohort variation. The Parnes data are intermediate between the two.

There are other fundamental differences in design. The PSID includes all household members, allowing much richer family-level analysis. Individuals and the events in their lives may be studied in the context of what is happening to the household unit and its other members, who are closely linked socially and economically to the respondent. The other two surveys emphasize the single respondent, but they do collect some information on the person's parents, spouse, and children. NLS72 is further limited in that it is a sample of high school seniors (hence excludes those who dropped out of school before the spring of their senior year).

Such differences in design produce complementarities that make their joint use in a single research project highly desirable. Two projects under way in Rand's Labor and Population Program build on these complementarities. One ("The Process of Initial Household Formation in Young Adulthood") examines selected causes, correlates, and consequences of variation in both age at leaving home and age at establishing a new household for young adults and their parental families. Early analyses have drawn on the NLS72 to document the basic accounting relationships (Goldscheider and DaVanzo, 1984), estimate preliminary models for predicting variation in age at leaving home (DaVanzo and Kobrin, 1982), and examine individual-level consequences of "nest-leaving," such as migration. The extent of bias resulting from the exclusion of high school dropouts was also assessed (Kobrin, 1981). Addressing other questions, however, required going beyond NLS72 to examine inter-cohort variation in certain processes and to explore in more detail the role of other family members in the relationships observed. The PSID is better suited to these latter purposes.

The second project ("Changing Living Arrangements and Family Formation of Young Adults") examines how leaving home before marriage is linked to subsequent marriage and childbearing, fertility, divorce, and the division of labor between spouses. Early analyses were confined to the Parnes datasets, elaborating the basic models (Kobrin and Waite, 1984); the final analyses will draw on the NLS72 data.

These two projects illustrate how research can benefit from the complementarities offered by multiple datasets; such efforts, however, must also deal with some fundamental problems. Any two independent surveys administered at the same time can yield disparate estimates of the same phenomenon, if questions were asked or answers coded in a different manner. Moreover, how the measures are constructed for independent analyses using separate datasets can often increase the differences observed. In prospective longitudinal surveys, such problems may be compounded at each subsequent wave, so that differences in attrition rates are added to the possible differences in selectivity at the original interviews, and changes in the organizations conducting the surveys become a new dimension for idiosyncratic variation.

Any project that uses several such datasets for parallel and complementary analyses must address a central question: To what extent do differences observed in (for example) marriage rates between (for example) members of the high school classes of 1970 (Parnes) and 1972 (NLS72) reflect real differences between the two groups? To what extent are the differences an artifact of the two analyses being based on two datasets?

This Note attempts to calibrate measures, constructed for the various datasets sets at approximately the same points in time, that will indicate how closely they match.[1] Some research has been reported

[1]This analysis is also important for these projects for a second reason. Although all the measures of life-cycle progress computed from these datasets are complex, those from the PSID are particularly problematic. Its complex design means that more information is collected for some persons than for others, depending on the individual's status within the household unit (e.g., a household head vs. a wife). In addition, the amount and quality of information on family-related issues differ sharply over the follow-up period. These together created a situation where the computer programs necessary to

on comparisons of data collected by different cross-sectional surveys (see Swicegood, Morgan, and Rindfuss, 1984). The research reported here, however, is the first designed to cross-validate longitudinal, prospectively collected data.

The analysis compares the various measures of life-cycle progress in early adulthood, because these are central to both projects. Where variables measured from two datasets fit reasonably well, it seems likely that the relationships among these variables will probably also be similar, although that remains to be examined. But where two datasets produce quite different estimates of, say, the proportion continuing in school, they may be measuring somewhat different phenomena--such as continuation in a full-time program or an accredited or academic program. Differences in the estimated effect of school continuation on, say, marriage rates might reflect these different phenomena.

Section II outlines the special characteristics of each survey that affect the construction of appropriate cohorts for comparison and compares them on such age and background characteristics as race and parental education. Section III presents the constructions of the four measures of life-cycle progress: first marriage, leaving the parental home, school enrollment, and military service; and Sec. IV shows how they compare across surveys. Section V discusses the results and their implications for the complementary use of these datasets and for the prospective collection of information on life-cycle transitions.

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calculate life-cycle statuses are so long, so complex, and thus so uncertain that some sort of external validation was necessary.

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II. THE COHORTS

Measures of life-cycle progress for each of the datasets are reported for cohorts as nearly alike as possible in age, time, and other characteristics.[1] The creation of comparable cohorts presented considerable difficulty, which affects comparisons of the life-cycle measures. The comparisons are rarely exact, and not all logical combinations proved to be possible. The central issues may be summarized as follows:

- *PSID vs. Parnes.* These allow the most closely matched comparisons. Both high school dropouts and high school graduates are included in both surveys. Comparisons of these two datasets use samples of females aged 14-17 in 1968 and of males aged 16-17, both reinterviewed nearly every year through 1978. There are 1,040 males aged 16 and 17 in 1968 in the Parnes survey and 261 in the PSID. For females, the cohort sizes are 1,794 and 572. The male cohort is narrower because the Parnes young men's survey began in 1966, but the PSID did not begin until 1968. Those younger than 16 in 1968 are not available from Parnes, which began with those 14 in 1966; and the older ages were not included, because the analyses have been restricted to those who could be observed to leave home. All are followed through 1978.

- *Parnes vs. NLS72.* The comparison is restricted to those who remained in school through the spring of their senior year in high school, because the NLS72 includes no information on high school dropouts. Further, these surveys were initiated at

[1]The only weights applied for these cohorts were those reflecting the original sampling plan. New weights reflecting attrition were not added for each follow-up observation. As an outer estimate of error from this source for Parnes, the 1978 values weighted with the original weights were compared with those reflecting the 1978 weights. Almost no differences were observed.

different times (Parnes in 1966 for boys and 1967 for girls; NLS72 in 1972), so it was necessary to construct a boy's class of 1970 and a girl's class of 1971. The Parnes cohorts for this comparison are smaller than any except the boys aged 16-17 in the PSID: 298 males and 347 females. The NLS72 cohorts are by far the largest: 5,667 males and 5,401 females.[2] All are followed for the first 7-1/2 years after high school graduation, the limit of NLS72 follow-up.

- *PSID vs. NLS72.* Unfortunately, this comparison proved to be infeasible. It would require restricting the PSID cohorts to those reaching the spring of their senior year in high school. As noted above, that was not a problem for the Parnes surveys; but one of the most difficult of the life-cycle progress measures in the PSID was school continuation. The analysis that follows will argue that the PSID measures, although clearly biased, may be used with appropriate caution in many types of analyses. However, they cannot be used to construct a high school class if the purpose is to match it with another dataset.

These cohorts are first compared on several measures of background characteristics (see Table 1). Measures of race, mother's education, and age at survey were recoded to maximize comparability. Only results for females are presented. Differing data available for males will be noted.

Overall, these cohorts seem to be drawn from populations that are alike. The most important and most reassuring result is for age. Both the Parnes Young Women and the PSID collected age at survey and were in the field in the very early months of each year. Parnes seems to have fewer very young women, but the average age of the cohorts is almost the

[2]Keeping track of sample size for NLS72 is complex because the panel both added and lost cases and also suffered moderately high levels of item nonresponse on many questions. The cohorts given here are those interviewed in 1973 who gave background information; and the sample analyzed here is in fact a further stratified subsample of the entire file. See Goldscheider and DaVanzo (1985) for a discussion of the sampling attrition and response issues associated with these data.

Table 1

COMPARISON OF BACKGROUND CHARACTERISTICS OF COMPARABLY DEFINED CASES: PSID, NLS72, AND PARNES YOUNG WOMEN (In percent)

Characteristic	Girls 14-17 in 1968		High School Class	
	PSID (n=572)	Parnes (n=1794)	Parnes(71) (n=347)	NLS72 (n=5401)
Child's age at survey				
14	29.6	19.9	--	--
15	24.1	31.5	--	--
16	24.8	27.4	0.0	0.6
17	21.5	21.3	68.0	40.6
18	--	--	29.4	52.9
19+	--	--	2.6	5.9
All ages:	100.0	100.0	100.0	100.0
Median age (yrs.)	15.9	16.0	17.8	18.1
Race				
White	86.7	87.0	89.4	83.6
Black	13.0	12.1	9.7	10.9
Other	0.3	0.9	0.9	5.5
	100.0	100.0	100.0	100.0
Mother's education[a]				
Less than high school	43.7	38.0	34.0	30.5
High school graduate	38.7	43.7	48.0	39.0
Some college	17.6	18.3	18.0	30.5
	100.0	100.0	100.0	100.0

NOTE: See Tables A.1 through A.3 for cohort sizes for both sexes.

[a]Head's education for the PSID.

same. About 3-1/2 months separate the two high school classes, because NLS72 dates from the late spring. As a result of the original design, there could be no 16-year-olds in 1971 in the Parnes data, because they would not have reached 14 in 1968, and thus could not enter the original panel. Otherwise, the age profiles accord closely with what would be

expected for a single group of high school seniors, measured three to four months apart. These results suggest that the cohorts have been constructed comparably and are thus appropriate for comparisons of their later life-cycle progress.

Similarity in age, however, did not always carry over into other background characteristics. PSID and Parnes are almost identical in terms of race, and the differences in parental education appropriately reflect differences in educational distributions of women and "heads" (PSID), most of whom are male. The NLS72, in contrast, had a much more detailed classification of racial and ethnic background than the other two surveys (including Asian, American Indian, and Hispanic groups). Although Hispanics were coded as "whites," Asians, Indians, etc. were coded "other." These results suggest that when more variation is allowed for, more (for whatever reasons) will appear.

The same pattern characterized questions on mothers' education. The NLS72 inquired about many possible types of post-secondary education, and thus many more people appeared to have sought some form of post-high-school program. Somewhat fewer mothers with less than high school education were recorded in the NLS72 sample as well, indicating a possible upward bias in social class background compared with the Parnes high school sample. This result may reflect the higher levels of both attrition and nonresponse in NLS72.

III. THE MEASURES

MARRIAGE

Both the Parnes and NLS72 used a combined strategy of asking current status and marriage dates to determine marital progress. Marriage information in both datasets was cleaned extensively (except for the Parnes Young Men). The data on young women were cleaned by the survey organization at Ohio State, and the NLS72 data were cleaned at Rand in conjunction with earlier research projects using these data (see Blaschke, Haggstrom, and Morrison, 1978). In both cases, the cleaning strategy was to use the current status information, resolving any inconsistencies in that information with calendar date information. (We assume that currently collected information will be more precise than that collected retrospectively.)

The PSID information is considerably weaker on this dimension, because information on both current status and marriage dates was collected more narrowly. The Parnes and NLS72, which follow individuals, naturally collected marital status information on their entire populations. PSID follows households and inquired about marital status only for certain persons in those households. Current marital status was asked only of heads of households (and could be assigned, of course, to their spouses). Information on other members of the household was not obtained, at least from the beginning of the survey in 1968 to 1974. Starting in 1975, married persons other than the head and spouse were identified (and usefully connected to each other through a "married-pair number"), but the marital status of others in the household remained unknown. A marriage date was collected only once, on women who were wives of heads in 1976. For this subgroup of people (all female), it is possible to establish whether their marriage in fact did begin the first year they could be observed as a "wife of head," or whether it might have begun somewhat sooner, perhaps while they were still living in their parents' or other relatives' household, or with nonrelatives.

For those who were not wives in 1976 (other females and all males), however, this information is missing. Frequently, young adults can be observed in the file to move away from their parents' household for a few years and be missing from the file. When they "return" there is no way to know whether they are in fact still single, or "single again."

This study's strategy has been to assume that all young persons in their parents' household are single until there is evidence to the contrary. Probably the transition to marriage is underestimated.

LIVING ARRANGEMENTS

The way in which each of these surveys measures living arrangements information varies greatly. The PSID and Parnes followed census practice in obtaining household listings and measuring "relationship to head of the household." For both, then, comparable information was available as long as a young person was still living at home with parents or residing in another household. However, the Census Bureau itself treats nonhousehold arrangements (e.g., those living in barracks or college dormitories) inconsistently. The decennial census counts such people where they are found, but the Current Population Survey (CPS) allocates them back to their parental household.

The Parnes surveys followed census practice for males, coding in lieu of a household listing the fact that the surveyed individual was living in group quarters. For females, however, they followed CPS practice and coded young women away at school as if they were in their parental household. Fortunately, mobility information was collected independently for the young women, and a large proportion of them can be observed to have moved and entered college, yet still to be living with their parents. Actual migration with parents can have occurred in only a small proportion of cases, given the very low migration rates measured for parents in this life-cycle stage. Therefore, all women who moved in the interval in which they entered college were assumed also to have left the parental home and lived in group quarters until they were no longer in college, in which case those living in the parental home were assumed to have returned.

Problems were somewhat greater for the PSID. Individuals who were not living in the parental household but had not yet become part of a household independent of their parents were coded as being away from home in an institution. However, problems of measuring school continuation and military service (see below) made it difficult to be sure what sorts of group quarters they occupied.

The NLS72 took a more eclectic approach to the issue of living arrangements. The first survey round asked no questions at all, assuming that all high school seniors would be living with their parents. In fact, CPS data show that 94 percent of them were (Kobrin, 1981). In the first follow-up (and with minor variations in later rounds), two questions characterized the type of dwelling and its inmates. The question on type of dwelling allows a very precise focus on institutional or group quarters, because barracks, dormitories, and other group quarters are explicitly mentioned. The household composition question is much less helpful, in that it is neither a household listing nor a strict delineation of relationship to head. Respondents were asked "with whom" they lived, the choice being "parents," "spouse," "other relatives," "nonrelatives," or "alone." After 1973, those married persons living with their parents can be distinguished with a separate code (although not those living with their in-laws.)

Persons living with other combinations faced more complex choices, however. Presumably, respondents saw an implicit hierarchy in the choices, and if they lived both with parents and other relatives, or with a spouse and nonrelatives, they mentioned the more central relationship. The most ambiguous case seems to be persons living with relatives. This includes both young unmarried parents (who may well have established an independent household) as well as nonparents (who may either be dependents living with an aunt, grandparent, or the like) or household heads responsible for the care of younger siblings.

SCHOOL ATTENDANCE AND MILITARY SERVICE

Both the Parnes and the NLS72 surveys explicitly examined the economic dimensions of early adulthood. Accordingly, they collected detailed information on a wide variety of activities such as labor force participation, on-the-job training, and other educational programs, as well as military service. Both surveys measured enrollment in many types of programs, at different levels of intensity, independent of measures of work status. Educational progress, in the sense of completion of various grades and levels, is nearly as well measured.

The PSID, by contrast, focused on the current economic status of its families. Income sources and hours worked in various productive ways (whether paid or unpaid) were collected in great detail. School attendance and military service, however, were poorly measured. For heads of households and their spouses, school attendance was recorded only when work levels were very low, using a labor force approach to current activity in which work takes precedence over concurrent enrollment; student status would be recorded only to sort the economically inactive. Even by age 17 or 18, though, most students are also working; and certainly the majority of those who have already become heads of households would combine school with labor force activity. For this reason, school continuation is underestimated among this group.

The PSID collected information about education primarily on children in PSID households. Respondents were asked about school attendance for persons under the age of 25 living in the household in the initial survey; thereafter they were asked whether anyone had *stopped* attending school and the highest grade that individual had attained. Apparently, however, this was not successful in tapping the transition from school. "School stop" was not recorded in many cases, possibly because of some form of reference period error. Perhaps parents, hoping that the interruption in progress was temporary, did not report it at the first reinterview after the child dropped out. By the following survey date, the "stop" may not have been picked up by a question keyed to the intersurvey interval. In view of these limitations, we used eventual educational attainment to assign student

status in the years after high school for those who were never reported to have stopped school. Although this procedure treats school enrollment as continuous (which is not always the case), it avoids other more serious distortions.

In contrast to school attendance, which was better measured among those who were not heads of households, military service was measured primarily for heads and spouses. The industry data collected for this subset of household members include codes for service in the military. Unfortunately for scholars wanting to use these data for studying young adulthood, military service among young adults is normally a transitional role before household formation. For those who eventually became heads of households, veteran status was recorded, however, and we have used this information to attempt to fill in military service during the years they were reported to be living in an institution.

The weaknesses in the measures of "school stop" and military service for nonhousehold heads frustrated our effort to construct status measures for persons who do not split off to become household heads or spouses during the period of observation. Living arrangements are also difficult to assign. For those who left to enter an institution, no distinction can be made between barracks and college dormitories. For those who do split off, some remedies are available. Educational attainment as well as veteran status was asked, enabling one in principle to distinguish the school-bound from the military-bound among those leaving home for an institution. In practice, however, some cases report both post-high-school education and past military service, requiring the researcher to make a judgment about sequence; others who show no past service record often report more years in institutional living arrangements than post-high-school years attained. Those who never went beyond high school were presumably in some other sort of institutional setting; however, allocating say three institutional years for someone who eventually reported 13 years of education becomes more problematic. In these cases it was also assumed that education is continuous, preceding other activities, including military service.

IV. THE ANALYSIS

This section uses the measures constructed to examine the degree of consistency across datasets, mainly the proportions classified as: (1) never married, (2) living with parents, (3) enrolled full time in school, and (4) in active military service.[1] The first three, in particular, relate to transitions that are central to early adulthood.

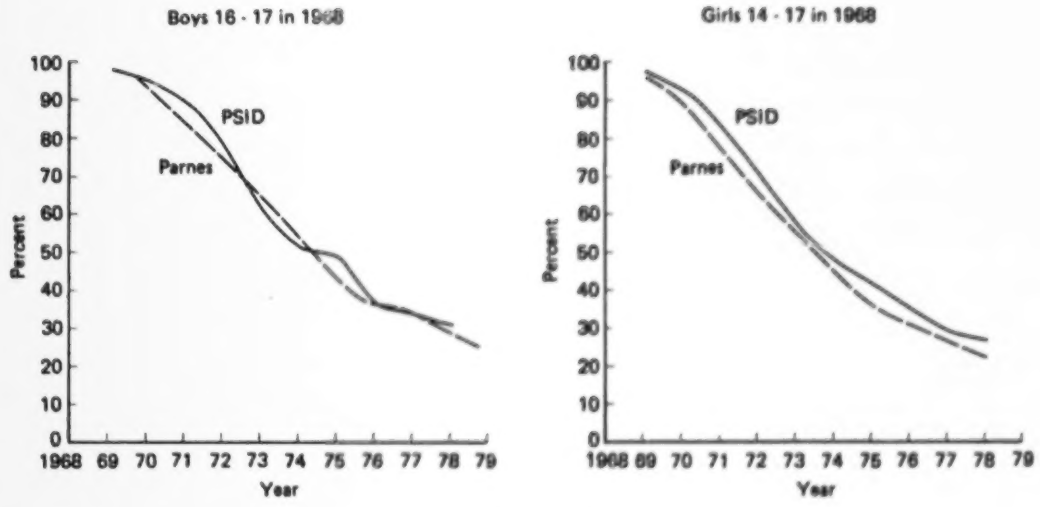
MARRIAGE

Figure 1 displays the proportions never married for the relevant cohort dataset pairs. (The data underlying these figures are furnished in Appendix Tables A.1 through A.3.) The top panels of Fig. 1 compare the PSID and Parnes cohorts of young men aged 16-17 and women aged 14-17 in 1968. The bottom panels compare the Parnes and NLS72 high school classes, with the longitudinal axis marking time in number of years since high school graduation. Points have been located within years according to the central interviewing months for each survey.

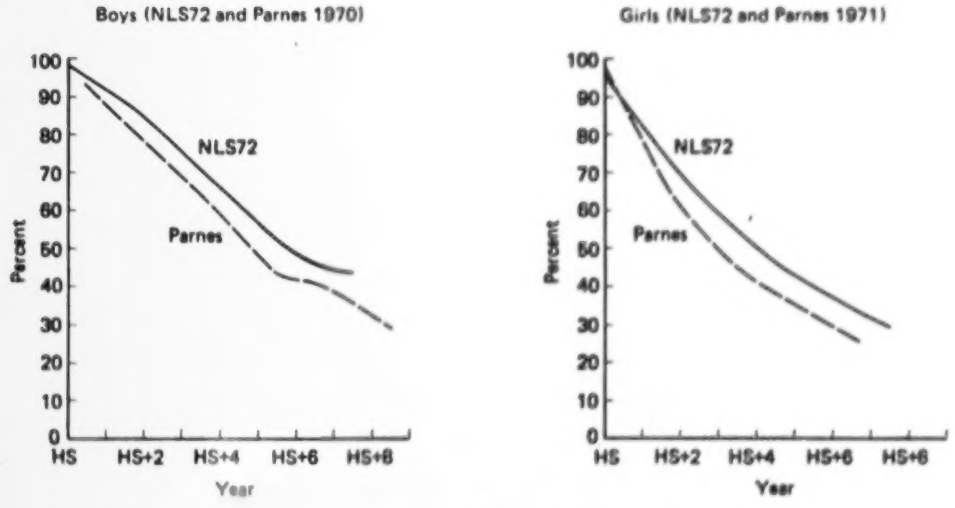
Some sex differences are expected in the extent of consistency because the NLS72 (unlike Parnes or PSID) used identical questions for men and women, permitting the construction of comparable measures for each. In each case, the male measures are expected to be weaker and to exhibit greater variability. For the PSID, this is because only women were asked directly for date of first marriage (and then only if they were married to a head of household in 1976); for Parnes, the female measures were extensively cleaned and verified, but the male measures were not (Mott, personal communication).

In fact, although the proportions registering as never married are nearly alike in each comparison, males seem to show fewer differences. Smoothing out the fluctuations resulting from the more frequent measures and small sample sizes for the PSID would yield near congruence among datasets for the men. Among women, slightly larger differences emerge, but the overall similarity remains. Differences in proportion never

[1]Employment measures could not be compared at all because of the very different approaches of these surveys (see, as well, Bowers, 1981).



A. PSID and Parnes age cohorts



B. NLS72 and Parnes high school classes

Fig. 1 — Life-cycle change in percentage never married

married rarely exceed 5 percentage points, with the Parnes data registering a more rapid entry into marriage than the PSID.

These differences could be due to a combination of two factors. First, the more thorough cleaning of the Parnes data will have reduced the tendency for persons who are separated or divorced to reemerge as "single." Second, the PSID constructions are likelier to miss than to overstate first marriages, because a married woman was not identified as such for the first seven years of the survey if her husband was not the household head. Many of these were filled in by the wives in response to the 1976 question, but some portion of those in this category were no longer wives or not yet wives of heads by 1976. These two effects together are not consequential, judging from these data.

The high school classes fare less well on this measure, particularly the males. Parnes young women (class of 1971) and young men (class of 1970) made the transition to marriage considerably faster than the NLS high school class of 1972. Two factors may be operating, and further research will be needed to sort them out. First, the marriage rate declined during this period for both sexes. Analysis of marriage rates among Parnes women showed an annual decline of as much as 15 percent at younger ages (Waite and Spitze, 1981). This is consistent with the direction of differences observed and with the considerably greater difference for the young men, who are separated by two years, than for the young women, who are separated by only one. Second, those likely to become very young high school seniors in 1970 and 1971 were also underrepresented in both original Parnes panels because of the age cutoff. The extent of this bias could be estimated by standardizing marital status by age within each cohort. If, as seems likely, these procedures correct for all or most of the differences in these curves, it would further reinforce a conclusion that can be supported only tentatively at this point: that the transition to marriage is being measured similarly--and presumably accurately--in each of these datasets.

LIVING ARRANGEMENTS

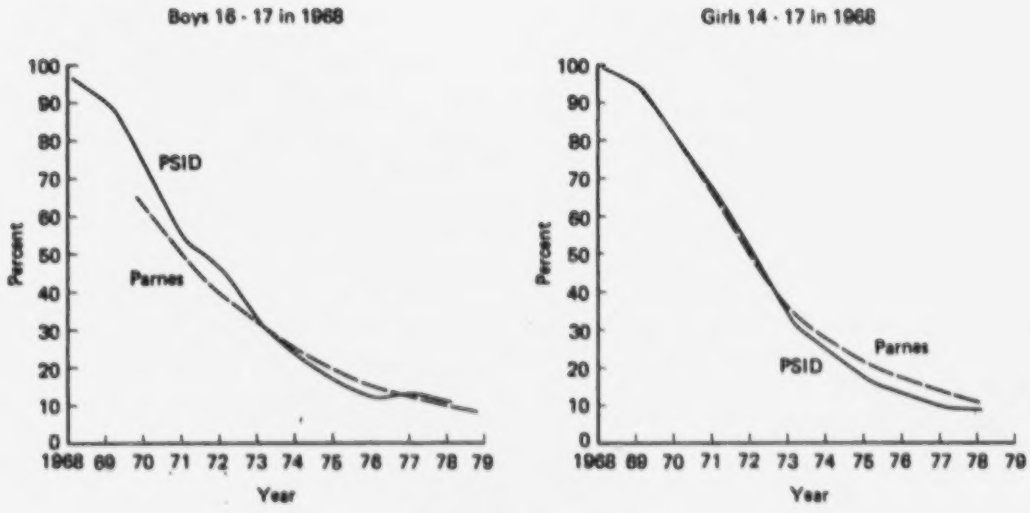
Corresponding data on the transition from home support a similar conclusion. Figure 2 presents cohort comparisons for living arrangements, indicated by the percentage living in the parental home. The upper panel shows a close correspondence between the PSID and Parnes age cohorts. The latter register a somewhat higher proportion of males away from home at the youngest ages (late teens and early 20s) and a somewhat lower proportion of females away from home at older ages (early and mid-20s). The Parnes measures should detect more residence with parents, particularly at older ages, because they are based on the presence of a parent of the respondent in the household rather than on the individual's being coded as "child of head" as in the PSID. This might influence female measures more than male, as widows are more likely to move in with daughters than with sons (Lopata, 1973).

A comparison of the high school classes, however, casts some doubt on this explanation. For both males and females, Parnes detects fewer living with parents at older ages than does the NLS72. The differences observed here, however, may parallel those shown in Fig. 2: Any decline in the marriage rate would increase the proportions living at home, because the young never-married are more likely than the once-married to live with their parental family (Goldscheider and DaVanzo, 1985). The larger gap for males (whose cohorts are separated by two years) again reinforces this interpretation. The appropriate test would require standardizing these percentages for marital status as well.

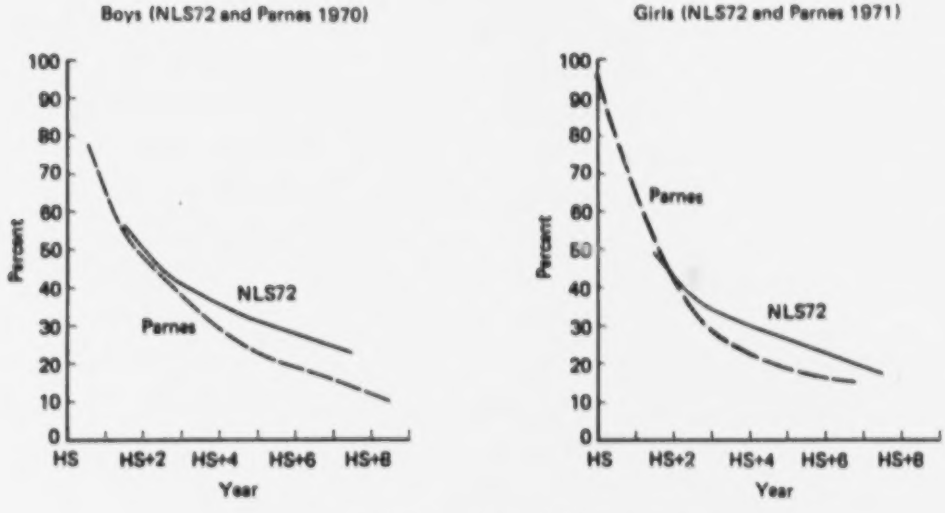
SCHOOL ENROLLMENT AND MILITARY SERVICE

The final measures to be evaluated are school enrollment and military service. These two measures are combined for display because of the interdependence of their construction in the PSID.

The results indicate that the procedure for separating nonresident students from "soldiers" was wholly inadequate for those data. (See Fig. 3.) For females, PSID and Parnes produced similar levels of school enrollment, at least through 1973. For males, by contrast, the procedure for the PSID detects consistently higher levels of school enrollment through 1975, with a disturbingly large (7 to 10 percentage

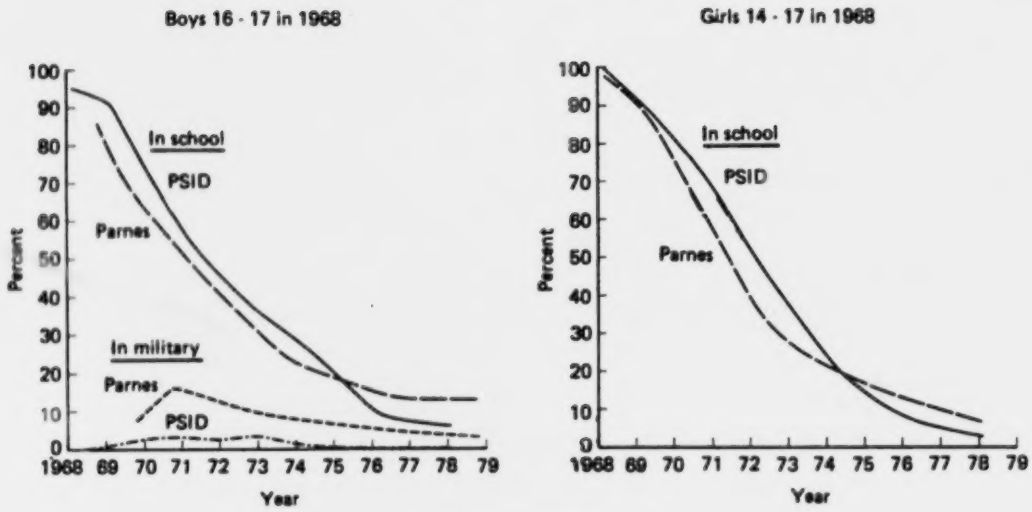


A. PSID and Parnes age cohorts

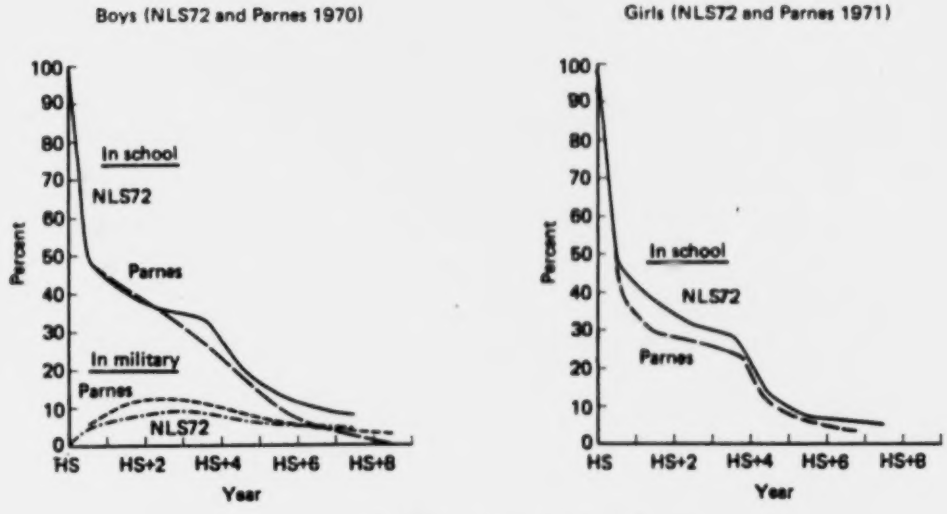


B. NLS72 and Parnes high school classes

Fig. 2 – Life-cycle change in percentage living with parents or relatives



A. PSID and Parnes age cohorts



B. NLS72 and Parnes high school classes

Fig. 3 – Life-cycle change in percentages enrolled full-time in school and percentages serving in the military

point) difference. The nature of the problem appears even more clearly in the percentages in military service. From 1968 to 1972 (coinciding with the war in Vietnam), the Parnes survey detected 10 to 15 percent of males in these ages in the military, but the PSID detected less than 5 percent.

The problems associated with the PSID school continuation measure are apparent in both the male and female comparisons. Unusually high enrollment levels are apparent for ages before most young people split off to a separate household (though much less so for girls, with regard to whom military service is creating few problems); and unusually low enrollment levels appear at older ages, when most have formed a new household. As a result, the percentage enrolled in school as measured by the PSID drops below the Parnes measures by 1973 for females and 1975 for males. This difference in timing appears to reflect the fact that daughters (who typically marry younger than sons) split off earlier. The high school class comparisons for Parnes and NLS72 show considerably closer congruence. Parnes shows a somewhat higher proportion in military service than does the NLS, but this appropriately reflects the two-year gap between the cohorts. The Parnes cohort of males graduating in 1970 faced the Vietnam draft lottery and the war; most who graduated in 1972 did not.

The NLS and Parnes files all start with those who were seniors in high school, and thus with almost 100 percent full-time enrollment. The NLS72 conducted its follow-ups in the fall, as did the Parnes young men, and both surveys show just under 50 percent continuing in school the fall following school graduation. In later years, NLS72 begins to show somewhat higher levels of enrollment, perhaps reflecting its much more extensive series of questions on school activities and types of all kinds, which for persons in marginal programs can reinforce that they are, in fact, in school. The same pattern appears for females, slightly accentuated. If this interpretation is correct, then either females are more likely to pursue marginal programs, or they may be more prone to underreport school attendance in such programs when only basic questions about school enrollment are asked, so that the NLS72 approach had more effect on them.

V. DISCUSSION

Most of the measures of life-cycle progress in early adulthood constructed from these surveys measure the same underlying phenomena. Specifically, the age cohort comparisons (Parnes and PSID) are particularly close, except for the military/school sorting among males in the PSID. If this problem cannot be resolved, the value of these data for life-course analysis will be somewhat lessened, because both college and military service indicate temporary interruptions in the transition to adulthood (McDonald and Rindfuss, 1981).

The comparisons based on the high school classes (Parnes and NLS72), although considerably less congruent, most notably reflect the more detailed data collection strategy of NLS72, together with the one and two year gaps between the two datasets for the female and male classes. One way to test for this possibility, in addition to those proposed above, might be to repeat the analyses on the Parnes and PSID age cohorts, varying them by one and two years to see if the magnitudes of difference observed mirror those characterizing the high school class cohorts.

Obviously, more refined comparisons could be made. Even so, the overall congruence among these separate longitudinal series is encouraging. That congruence equals and often surpasses the single background measures first compared. Although at greater risk of accumulating errors, longitudinal surveys may also reduce random error by measuring the same phenomenon repeatedly for the same individual. Thus, longitudinal studies like those analyzed here provide an additional benefit for social analysis, by increasing the reliability of measures on these variables. This suggests that collecting multiple measures over time, even for invariant characteristics, might also be worthwhile.

Beyond general agreement in level, however, a question remains: Are the *relationships* estimated from these measures congruent across datasets? An important further analysis would be to replicate analyses already completed on NLS72 and Parnes files on each other and, if

possible, on the PSID, again using cohorts defined as nearly comparably as possible.

This would be a much more stringent test in which minor differences in levels might translate into much larger differences in the structure of relationships. Systematic comparisons have not been attempted, and most cross-dataset relationships observed have been broadly similar; but in the analyses of factors influencing the "return to the nest," the structure of relationships differs greatly between datasets. Although PSID and NLS72 show generally similar proportions of respondents formerly married, and similar proportions living with parents as well, the NLS72 shows that ending marriage is strongly associated with a return home, but PSID shows no such relationship. The problem is in the PSID, which not only makes it difficult to determine when an actual split-off has returned to the parental home, but also makes it almost impossible to determine marital status among those who have done so. When such an analysis has been completed satisfactorily, concurrent analyses fully exploiting the complementarities among these datasets perhaps will become the preferred strategy for many research questions.

These data are already collected, and it will be difficult to perfect their measures much further without adding extensive histories of life-course events to later follow-ups. And even as they stand, further analyses will probably show that these datasets can pass most of the more stringent tests mentioned above, thus validating them for many types of analyses of life-cycle transitions. Nevertheless, other surveys of young adulthood are likely, and this analysis should be helpful in pointing to ways such data can be better collected and the life-cycle events better measured.

The most obvious example is the PSID's "Have you stopped beating your wife" approach to the periodic collection of change data, such as the school stop question. This becomes a problem when data collection is not essentially continuous, because problems of reference period as well as many other sorts of error can lead to a situation in which the respondent cannot correctly identify change over a given period without some reminder of what the situation actually had been reported to be in the past. A much more detailed approach is necessary. One possibility is to pre-record the past status for each person, give a prompt about

that status (which the respondent could then "correct"), and then ask a question about change. Alternatively, follow-up questions could be added (for those answering "yes") on when the event occurred, thereby preventing multiple school stops; and (for those answering "no") to confirm the previous (but unknown to the interviewer) state. Asking "Then is he/she still in school?" would have clarified the situation entirely.

Even when the new situation appears clear, as when the question applies directly to the current state rather than to a transition, the date of occurrence proved to be an extremely valuable datum for analyses of marital status on the Parnes Young Women and the NLS72. Although normally intended as a means to create continuous data from intermittent contacts, it also has the advantage of filling in observations on persons who were missing at a given interview and helping to reconcile discrepant answers that appear over time. The regular collection of dates is the best way to monitor life-cycle progress, even in prospective surveys.

The final, perhaps key lesson of these comparisons is that data whose collection is tied to specific household statuses generally has limited value for analyzing the life cycle. Rather, data collection should be keyed to specific people or preferably to every status within a household. Experience with the PSID over time demonstrates that households are far more responsive and malleable than was first thought. As their members come and go, they also change statuses, and those changes are the essence of the process of transition to adulthood.

Appendix
BACKGROUND TABLES

Table A.1

MEASURES OF LIFE-CYCLE PROGRESS FROM THE PANEL STUDY OF INCOME DYNAMICS
(Interview dates January, February in all years)

Life Cycle Status	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Males 16-17 in 1968 (n = 261)											
Full-time student	95.4	91.5	73.9	57.6	45.4	35.6	28.1	19.3	9.9	7.6	6.1
Never married	-	98.2	94.9	89.6	78.0	61.6	51.2	48.8	36.3	34.2	31.2
Living with parents	96.2	89.1	72.2	53.6	45.7	31.4	22.9	17.0	12.3	13.0	10.8
Member of armed services	0.0	1.1	2.6	3.6	2.2	2.8	1.5	0.8	0.0	0.0	0.0
Females 14-17 in 1968 (n = 572)											
Full-time student	96.8	90.7	79.3	66.5	49.6	36.2	22.5	14.0	7.9	4.8	3.1
Never married	-	97.7	92.5	82.3	70.2	57.1	47.8	42.0	35.0	29.8	26.8
Living with parents	99.4	94.2	80.3	66.6	50.2	32.1	23.1	16.9	13.5	9.7	8.9

Table A.2

MEASURES OF LIFE-CYCLE PROGRESS FROM THE NATIONAL LONGITUDINAL STUDY OF THE HIGH SCHOOL CLASS OF 1972

(Interview months April in 1972 , October in later years)

Life-Cycle Status	Spring Senior Year	HS+6 Months	HS+1-1/2 years	HS+2-1/2 years	HS+3-1/2 years	HS+4-1/2 years	HS+5-1/2 years	HS+6-1/2 years	HS+7-1/2 years
Males (n = 5667)									
Full-time student	-	49.6	40.1	35.6	32.8	21.0	13.5	10.1	8.0
Never married	98.3	-	89.3	80.2	-	62.7	-	-	42.9
Living with parents	-	-	56.5	43.9	-	33.3	-	-	23.3
Member of armed services	-	4.5	6.9	8.7	8.3	6.4	5.9	5.1	4.6
Females (n = 5401)									
Full-time student	-	49.6	38.0	31.5	28.7	13.3	7.8	6.3	4.7
Never married	95.7	-	75.5	64.2	-	46.3	-	-	29.4
Living with parents	-	-	49.7	37.3	-	28.1	-	-	17.6

Table A.3

MEASURES OF LIFE-CYCLE PROGRESS FROM THE PARNES NATIONAL LONGITUDINAL SURVEYS: BIRTH AND HIGH SCHOOL COHORTS

(Interview month for males, October; for females, January)

Life-Cycle Status	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Males 16-17 in 1968 (n = 1040)										
Age cohort										
Full-time student	66.4	51	43.5	-	23.4	-	16.4	13.8	-	12.8
Never married	96.0	-	77.3	-	57.6	-	36.5	35.8	-	25.5
Living with parents	66.5	-	41.0	-	25.9	-	15.8	12.4	-	8.1
Member of armed services	7.7	15	16.7	-	10.2	-	5.9	4.7	-	3.1
Females 14-17 in 1968 (n = 1794)										
Age cohort										
Full-time student	89.7	72.9	-	36.7	26.0	-	16.4	-	-	6.2
Never married	96.0	89.7	-	64.7	52.8	-	35.8	-	-	21.9
Living with parents	93.9	80.5	-	48.4	35.2	-	21.3	-	-	11.0
Male High School Class of 1970 (n = 298)										
		HS+6 months	HS+1-1/2 years		HS+3-1/2 years		HS+5-1/2 years	HS+6-1/2 years		HS+8-1/2 years
High school cohort										
Full-time student	-	49.6	40.6	-	27.8	-	10.4	5.1	-	0.5
Never married	-	93.4	82.8	-	64.0	-	43.8	41.5	-	29.6
Living with parents	-	77.8	54.1	-	33.6	-	20.5	17.5	-	10.1
Member of armed services	-	5.7	10.6	-	11.4	-	6.4	5.2	-	3.0
Female High School Class of 1971 (n = 347)										
			Spring Senior Year	HS+6 months	HS+1-1/2 years		HS+3-1/2 years			HS+6-1/2 years
High school cohort										
Full-time student	-	-	(100.0)	37.5	28.8	-	23.0	-	-	2.7
Never married	-	-	97.8	82.7	64.0	-	43.2	-	-	25.6
Living with parents	-	-	97.0	71.1	47.1	-	23.0	-	-	14.1

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